Appendix A
Wetlands and Waterways

Information Included in Appendix A, Wetlands and Waterways

A-1 United States Coast Guard Correspondence, December 2008

A-2 U.S. Army Corps of Engineers, Preliminary Jurisdictional Determination, June 2011

A-3 Wetlands and Waterways Delineation Report, June 2011

A-1 U.S. Coast Guard Correspondence, December 2008

From: Joseph Krupitza
To: Stanifer, William
CC: Bloom, Robert; Striffler, Scot
Date: 12/23/2008 11:29 AM
Subject: RE: Portageville Bridge Replacement Project

Good Morning Mr. Stanifer:

Thanks so much for your reply.

NYSDOT wishes everyone Happy Holidays at the USCG as well.

Sincerely,

Joe Krupitza
>>> "Stanifer, William" <William.B.Stanifer@uscg.mil> 12/23/2008 11:23 AM >>>
Joe,

After reviewing the scoping document for the Portageville Bridge Project, a Coast Guard Bridge Permit will not be required for the proposed construction project in accordance with the Coast Guard Authorization Act of 1982. This Act states that a permit is not required (if so determined by the U.S. Coast Guard) for bridge construction over navigable U.S. Waterways that do not presently carry foreign and/or interstate commerce, are not susceptible to reasonable improvement to carry such commerce, and are non-tidal waters. Though a Coast Guard Bridge Permit is not required, you must still comply with the requirements of other federal, state, or local agencies.

Please feel free to contact this office with any questions or concerns you may have. Thanks, and have a great holiday.

Blair Stanifer
Bridge Management Specialist
Ninth Coast Guard District
Office:(216)902-6086
Fax: (216)902-6088
william.b.stanifer@uscg.mil

-----Original Message-----
From: jkrupitza@dot.state.ny.us [mailto:jkrupitza@dot.state.ny.us]
Sent: Tuesday, December 23, 2008 10:43 AM
To: Stanifer, William
Subject: Portageville Bridge Replacement Project

Hello:

Here is the requested link. NYSDOT is performing a SEQR study.

https://www.nysdot.gov/divisions/operating/opdm/passenger-rail

Thanks - Joe K.

Joseph R. Krupitza
Civil Engineer 1
NYSDOT
Freight Bureau
50 Wolf Road - Mail Pod 5-4
Albany, NY 12232
Phone: (518) 485-0105
Fax: (518) 457-3183

A-2 U.S. Army Corps of Engineers,
Preliminary Jurisdictional Determination, June 2011

DEPARTMENT OF THE ARMY
BUFFALO DISTRICT, CORPS OF ENGINEERS
1776 NIAGARA STREET
BUFFALO, NEW YORK 14207-3199

REPLY TO

June 22, 2011

Regulatory Branch

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2008-01754

Amanda Atwell
C&S Companies
499 Col. Eileen Collins Blvd.
Syracuse, NY 13212

Dear Ms. Atwell:

I have reviewed the wetland delineation map you submitted with your request for a wetland boundary verification on behalf of Norfolk Southern and New York State Department of Transportation in the vicinity for the Norfolk Southern Railroad Bridge over the Genesee River located in the Towns of Portageville and Genesee Falls, Livingston and Wyoming Counties, New York.

I have evaluated your submitted wetland delineation map and have determined that the wetland and water boundaries shown on the map accurately represent on-site conditions. I have enclosed the Preliminary JD Form with this letter. The form and attached table identifies the extent of waters on the site and specific terms and conditions of the Preliminary JD.

Please note that this is a Preliminary Jurisdictional Determination (JD). Preliminary JDs are non-binding written indications that there may be waters of the United States on your parcel and approximate locations of those waters. Preliminary JDs are advisory in nature and may not be appealed.

Pursuant to Regulatory Guidance Letter 08-02, any permit application made in reliance on this Preliminary JD will be evaluated as though all wetlands or waters on the site are regulated by the Corps. Further, all waters, including wetlands will be used for purposes of assessing the area of project related impacts and compensatory mitigation. If you require a definitive response regarding Department of the Army jurisdiction for any or all of the waters identified on the submitted drawings, you may request an approved jurisdictional determination from this office. If an approved jurisdictional determination is requested, please be aware that this is often a lengthy process and we may require the submittal of additional information.

SUBJECT: Preliminary Jurisdictional Determination for Department of the Army Application No. 2008-01754

In accordance with Regulatory Guidance Letter 05-02, "Preliminary jurisdictional determinations are not definitive determinations of areas within regulatory jurisdiction and do not have expirations dates." However, I strongly recommend that the boundaries of waters of the United States be re-evaluated by a qualified wetland biologist after five years of the date of this letter. This will ensure that any changes are appropriately identified and you do not inadvertently incur a violation of Federal law while constructing your project or working on your project site.

Lastly, this determination has been conducted only to identify the limits of waters that may be subject to Corps Clean Water Act or Rivers and Harbors Act jurisdiction. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resource Conservation Service prior to starting work.

A copy of this letter has been sent to Mr. Bill O'Hern and Mr. Kevin Miller at the New York State Department of Transportation Region 4 and Mr. Kevin Hauschildt at Norfolk Southern Corporation.

Questions pertaining to this matter should be directed to me at 716-879-4342, by writing to the following address: U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, or by e-mail at: Mark.L.Lester@usace.army.mil

Sincerely,

Mark L. Lester

Mark L. Lester
Biologist

Enclosures

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): June 13, 2011

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD: Norfolk Southern Corporation and the New York State Department of Transportation

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: Buffalo District, NYSDOT and Norfolk Southern Corp. – Portageville Bridge Project, 2008-01754

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: (USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: New York County/parish/borough: Livingston and Wyoming City: Portagevllle and Genesee Falls

Center coordinates of site (lat/long in degree decimal format): Lat. 42.57761° N, Long. -78.04951° W.

Universal Transverse Mercator:

Name of nearest waterbody: Genesee River

Identify (estimate) amount of waters in the review area:

Non-wetland waters: Stream B is 226 linear feet: 3 width (ft) and/or acres.

The Genesee River is 187 linear feet: 132 width (ft) and/or acres.

Cowardin Class: Riverine

Stream Flow: Perennial

Wetlands: 0.052 acres.

Cowardin Class: Emergent

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal: Genesee River

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: April 4, 2011

☒ Field Determination. Date(s): April 27, 2011

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Wetlands and Waterways Delineation Report June 2011.

☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

- ☒ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps:

☒ Corps navigable waters' study:Genesee River.

☐ U.S. Geological Survey Hydrologic Atlas:

- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name:1:24,000 Portageville NY.

☒ USDA Natural Resources Conservation Service Soil Survey. Citation:SSURGO Soils Map.

☒ National wetlands inventory map(s). Cite name:USFWS NWI Map (Online Version).

☒ State/Local wetland inventory map(s):NYSDEC Freshwater Wetlands Map.

☐ FEMA/FIRM maps:

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date):Aerial photos included in Figures section of Wetlands and Waterways Delineation Report (June 2011).
or ☒ Other (Name & Date):Photos taken October 2, 2008 included in Appendix B of Wetlands and Waterways Delineation Report (June 2011) and photos taken April 27, 2011 on a field site visit.

☐ Previous determination(s). File no. and date of response letter:

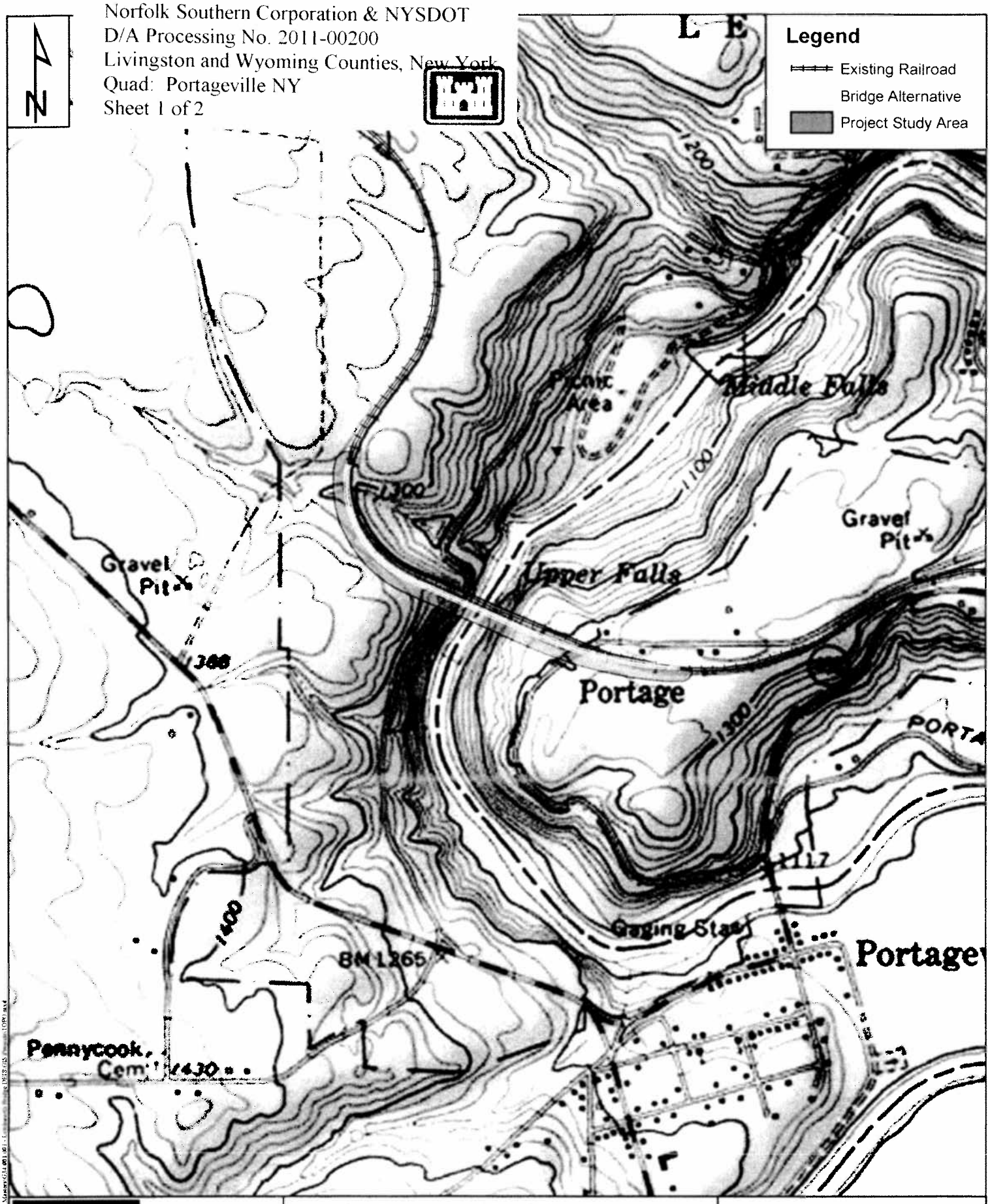
☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

Mark L. Lester 6/13/11
Signature and date of
Regulatory Project Manager
(REQUIRED)

Kevin G Hamblett 6/16/11
Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining
the signature is impracticable)

Site number	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
Wetland A	42.57812 N	-78.05124 W	PEM - Palustrine, Emergent	0.052 acre	non-section 10 – wetland
Genesee River	42.57763 N	-78.04957 W	R2 - Riverine, Lower Perennial	187 linear feet	section 10 – non-tidal
Stream B	42.58031 N	-78.05334 W	R3 – Riverine, Upper Perennial	226 linear feet	non-section 10 – non-wetland



General Project Location and Topographic Map
Portageville Bridge Project
Town of Portageville, Livingston County New York
Town of Genesee Falls, Wyoming County, New York

Figure 1

C&S COMPANIES
C&S Engineers, Inc.

Legend
Project Study Area
Flag
Data Point
Stream OHW
Wetland
Approximate Stream OHW/MHW
Bridge Alternative
Existing Railroad

N

Portageville Bridge Project
Town of Portageville,
Livingston County New York
Town of Genesee Falls,
Wyoming County, New York

Revision Date: May 2011.
Additional points, notes, and updated acreage.

PROJECT NO.	C34001001
DATE	September 2011
SCALE	AS SHOWN
DRAWN BY	WNR
DESIGNED BY	WNR
CHECKED BY	ABS

WETLAND DELINEATION PLAN

WP1

Norfolk Southern Corporation & NYSDOT
D/A Processing No. 2011-00200
Livingston and Wyoming Counties, New York
Quad: Portageville NY
Sheet 2 of 2

A-3 Wetlands and Waterways Delineation Report, June 2011

WETLANDS & WATERWAYS DELINEATION REPORT

NORFOLK SOUTHERN CORPORATION
PORTAGEVILLE BRIDGE PROJECT
TOWN OF PORTAGEVILLE, LIVINGSTON COUNTY &
TOWN OF GENESEE FALLS, WYOMING COUNTY,
NEW YORK

June 2011

C&S Engineers
499 Col. Eileen Collins Blvd.
Syracuse, New York 13212

TABLE OF CONTENTS

ATTACHMENTS

1.0 Introduction

C&S Engineers, Inc. has been retained by Modjeski & Masters to perform environmental services and studies to support the State Environmental Quality Review Act Environmental Impact Statement (EIS) process for the Norfolk Southern Corporation (NS) Portageville Bridge project. NS is proposing to modernize, including potentially replace the Portageville Bridge, a bridge carrying rail freight traffic near Portageville New York. The bridge is located within the southern end of Letchworth State Park, within the Town of Portageville, Livingston County, and the Town of Genesee Falls, Wyoming County, New York (Figure 1). Within the Park, the Genesee River flows from south to north through a deep gorge and over three scenic waterfalls. The bridge is situated near the southern end of the park adjacent to the Upper Falls and is oriented in a general east-west direction. The bridge is the weakest link of NS's mainline route between Buffalo and Binghamton, New York.

This project will examine various alternatives, including keeping the current bridge, replacing the bridge on new and existing alignments, and rehabilitation of the existing bridge. The report discusses wetland and waterways located within a proposed parallel alignment, as discussed in the EIS. Other potential alignments were not reviewed as part of this report. The approximate 14.7 acre study area reviewed is considered the project study area hereinafter, and is shown in the attached figures and plans. C&S performed wetland, ordinary high water (OHW), and mean high water (MHW) delineations for existing waterbodies within the project study area. A plan showing the project study area, with the wetland, OHW, and MHW boundaries identified has been attached as the Wetlands and Waterways Delineation Plan (WP-1). This report has been prepared to discuss the findings of the wetlands and waterways identified and defined during the site investigation.

2.0 Methods

The following information, resources, and references were utilized during the wetland delineation and preparation of this wetland delineation report.

2.1 Agency Resource Information

Prior to the field survey of the property, various maps and other sources of background information were reviewed. These included: United States Geological Survey (USGS) topographic map (Portageville USGS 7.5 Minute Quadrangle) (Figure 1); National Wetlands Inventory (NWI) Map prepared by the Fish and Wildlife Service (Figure 2); NYSDEC Freshwater Wetlands and Stream Classification Map (New York State Regulatory Freshwater Wetlands for Livingston and Wyoming Counties – ARC Export) (Figure 3); and SSURGO Soils Map, prepared utilizing United States Department of Agriculture Natural Resources Conservation Service Soil Survey Geographic Database for Livingston and Wyoming Counties, New York (Figure 4). The above maps were used initially to identify areas with potential to contain wetland and stream conditions.

2.2 Field Surveys

C&S conducted a field survey and performed wetland, OHW, and MHW delineations of the project study area on September 7, 2010. The background information maps and soils information discussed above were referenced during the field surveys of the site. During the field surveys, dominant flora species, hydrologic features, and soil conditions were recorded. Field data sheets were recorded to characterize wetlands and specific cover types present in the project study area, these field data sheets are included as Appendix A.

The boundaries of the wetlands were delineated using the criteria for vegetation, soils, and hydrology as specified in the *1987 Corps of Engineers Wetlands Delineation Manual* (USACE, 1997) (hereinafter referred to the USACE Manual) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (USACE, 2009) (hereinafter referred to as the Regional Supplement). The United States Army Corps of Engineers (USACE) is engaged in an ongoing effort to develop supplemental regional criteria and guidance specific to the Northcentral and Northeast region for the USACE Manual. The USACE Manual continues to provide the technical guidance and procedures for identifying and delineating wetlands that may be subject to regulatory jurisdiction. The Regional Supplement was created to improve the accuracy and efficiency of wetland delineation procedures and is designed for concurrent use with the USACE Manual.

The New York State Department of Environmental Conservation's (NYSDEC) Manual was not utilized as no NYSDEC Freshwater Wetlands were mapped within, or immediately adjacent to, the project study area (See Figure 2).

A formal wetlands and waterways delineation was conducted for the above mentioned project on October 2, 2008 using the USACE Manual. Since 2008, the USACE published the Regional Supplement that supersedes some aspects of the USACE Manual. The project study area and former delineation was reviewed in order to comply with the updated regulatory supplement. Generally, the wetland and stream boundaries remained consistent through use of the USACE Manual and the Regional Supplement, however data collection requirements were different. As such, updated wetland data plots were recorded to comply with the Regional Supplement.

The MHW and OHW mark for the unnamed tributary of the Genesee River located within the project study area were delineated utilizing the definitional criteria as presented in Title 6 of the Codes, Rules, and Regulations of the State of New York, Part 608, Use and Protection of Waters, and Title 33, Code of Federal Regulations, Part 328. Surveyor's flags or ribbon were placed along the stream boundaries based on visual assessment of the MHW and OHW. The Genesee River was not delineated, yet was approximated utilizing the stream edge identified on the USGS topographic map.

Surveyor's flags or ribbon were placed along the wetland boundaries based on observations of vegetation, hydric soils, and hydrology conditions. These observations were made throughout the hydrologic condition continuum to verify that the wetland boundary was sufficiently identified. Additional observations of vegetation, soils, and hydrology were made at intermediate locations for the placement of additional flagging to refine the wetland boundary. Each wetland and stream was assigned a letter designation. Each flag was labeled with the letter of the wetland or stream and numbered consecutively. Wetland and stream boundaries were surveyed by C&S Engineers, Inc. using Trimble GeoXH GPS units with sub-foot accuracy. GPS code and carrier phase post-processed differential correction methodology was applied using Trimble's Pathfinder Office 3.1 software. The above referenced data was then placed on the project base maps for the preparation of the Wetland Delineation Plans included in this report. C&S calculated the acreage of the wetlands and linear feet of streams using Environmental Systems Research Institute ARCGIS ARCView 9.2.

Wetland data plots were gathered during the field surveys. Vegetation was identified in each vegetative stratum, as present and appropriate (e.g. tree stratum, sapling/shrub stratum, herbaceous stratum, and woody vine stratum) consistent with the USACE Manual and USACE Regional Supplement. Scientific nomenclature for plant species and the indicator status for each plant species were determined using the *National List of Plants that Occur in Wetlands: Northeast (Region 1)* (Reed, 1988) (hereinafter referred to as Reed).

Soil characteristics and hydrology data were observed and collected at representative areas in test pits within the wetland. The soil and hydrologic data test pits were located at the center point of the vegetative plots. The pits were excavated by hand to a depth of 20 inches below grade consistent with the USACE Regional Supplement. The presence of hydric soil indicators was determined by describing pertinent characteristics of the soil sample. Soil colors were determined using the Munsell® soil color charts (2000 Edition). Hydric soil characteristics such as organic soil layers, reducing conditions, gleying, low-chroma mottles, and concretions were noted where they occurred. Primary and secondary indicators of hydrology were also noted at each sample plot.

A wetland determination was made at each sample plot after characterizing vegetation, hydrology, and soil. If the vegetation, hydrology, and hydric soil criteria were met, the area was deemed to be a wetland. If one or more of the criteria were not met, the area was determined to be non-wetland. If abnormal or atypical conditions were present, these conditions were identified and a different paradigm was used to determine the presence of wetland parameters as identified in Section F of the USACE Manual and Chapter 5 of the Regional Supplement. Photographs of wetland communities are presented in Appendix B.

3.0 Results

National Wetland Inventory Map Review

Review of the National Wetland Inventory Map indicated that one mapped resource exists within the project study area, and immediately adjacent to the study area, as shown in the attached Figure 2. This mapped resource corresponds to the Genesee River, and is identified as riverine, upper perennial, unconsolidated bottom, permanent (R3UBH). It should be noted that NWI maps carry no federal jurisdictional value and serve only as general reference documents.

NYSDEC Freshwater Wetlands and Streams Map Review

The NYSDEC Freshwater Wetlands Map for the project study area revealed that no NYSDEC jurisdictional wetlands are located within or immediately adjacent to the study area (Figure 3). NYSDEC streams are found within the project study area.

SSURGO Soils Map Review

Soils within the area are predominantly mapped as Arkport very fine sandy loam, Braceville silt loam, Chenango gravelly loam, Varysburg gravelly loam, and Williamson channery silt loam (Figure 4).

- The Arkport series consists of very deep, well drained soils formed in sandy glacio-lacustrine sediments. These soils are on tops to sides of glacial deltas and plains, slopes range from 25 to 45 percent (SSS-NRCS-USDA).
- The Braceville series consists of very deep, moderately well drained soils formed from water-sorted glacial outwash. Slope ranges from 0 to 25 percent (SSS-NRCS-USDA).
- The Chenango series consists of very deep, well to excessively well drained soils formed from water-sorted glacial outwash (SSS-NRCS-USDA).
- The Varysburg series consists of very deep, well to moderately well drained soils on dissected lake plains. These soils are typically have loamy surfaces with underlying dense clayey sediments (SSS-NRCS-USDA).
- The Williamson series consists of deep, moderately well drained soils on lake plains and uplands. Soils are typically silty with a dense fragipan layer that restricts root penetration and water movement (SSS-NRCS-USDA).

None of the soil series within the project area are listed as hydric or as soils having potential hydric inclusions (SSS-NRCS-USDA 2009 & SCS-USDA 1989).

Delineation Results

During the field surveys, one wetland area, Wetland A, was identified within the project study area. Two streams were identified within the project study area. These streams were identified as the Genesee River and Stream B. These resources are depicted within the attached Wetlands Delineation Plan (WP1).

The center of the Genesee River demarcates the county line; the river is within both Wyoming and Livingston Counties. Wetland A and Stream B resources are located

within Wyoming County. No wetland or waterways resources were found within the Livingston County portion of the study area.

3.1 Wetland Descriptions

Within the approximate 14.7 acre project study area, one wetland of 0.052 acres was delineated.

Wetland A, 0.052 acres, was delineated within the project study area. This small emergent wetland is located within a partial hemlock overstory. The feature is located between a clearing associated with a park trail and a mature hemlock forest, within a depression at the base of a significant hill. A description of the flora, soils, and hydrology for Wetland A noted during field surveys follows:

- ***flora***
  The wetland is best characterized as palustrine emergent (PEM) broad-leaved persistent wetland cover type, based on the U.S. Fish and Wildlife Service (USFWS) publication "*Classification of Wetlands and Deepwater Habitats of the United States*" (Cowardin et al., 1979). These wetlands have a predominance of hydrophytic vegetation and are typically saturated near surface, flooded, or inundated for short to long intervals.

- ***soils***
  The soil survey map shows this wetland area consists of Williamson channery silt loam series. Field observations indicated that soils in this wetland are not consistent with the mapped survey due to a wetter moisture regime. Soils in this wetland exhibited low-chroma colors, and meet *Hydric Soil Field Indicator* F3, Depleted Matrix and A5, Stratified Layers, thus soils within the delineated area meet the Regional Supplement criteria for hydric soils.

- ***hydrology***
  The following indicators of hydrology were noted in Wetland A:

  a.) Surface water,
  b.) Saturation,
  c.) High water table,
  d.) Water-stained leaves,
  e.) Geomorphic position; and
  f.) Positive FAC-Neutral test.

  Based on field observations and the reference material available, this area meets the criteria for having wetland hydrology as defined in the Regional Supplement.

Further information concerning details of vegetation, soils, and hydrology can be found in the wetland determination sheets included as Appendix A.

This small wetland is a result of overland flow from the trail and the hill, ponding from precipitation events, and, potentially, groundwater seepage from the hill. The feature may also be a result of construction of the trail that could have cut off overland flow and impounded the wetland. The soils in the area are mapped as having a dense fragipan layer in the subsoil, it is possible that soil management exposed the dense layer that would act as an impervious soil surface, thus creating the wetland.

Water flows from the depression, into a small channel, and then ponds in another depression immediately upgradient from a storm grate. A small channel conveys water from the depression into the storm grate and concrete lined drainage basin. The storm grate and drainage basin are part of the park drainage system; the basin outlets via an 8 inch PVC pipe directly into the Genesee River. There is evidence of a hydrologic connection between the wetland and the park drainage system. This wetland feature can be considered adjacent to a jurisdictional water feature as water flows into the Genesee River, which is designated as a navigable water, via the park drainage system. Further information concerning details of vegetation, soils, and hydrology can be found in the wetland determination sheets included as Appendix A.

3.2 Stream Descriptions

Within the approximately 14.7 acre project study area, the Genesee River and an unnamed tributary of the Genesee River were identified.

The Genesee River, approximately 187 linear feet of stream within the project study area, is a NYSDEC mapped stream (Ont. 117-3.1) designated Class B with B water quality standards, and is a protected water of the State. The river flows generally north from it's headwaters in Pennsylvania to Lake Ontario. The main channel stream is considered traditionally navigable water within the project study area. Additionally, it is designated a State Scenic River within Letchworth State Park. The Genesee River is a fourth order stream (at least) within the study area. Since steep slopes within the area limit accessibility of the immediate streambed, the limits of the river were approximated utilizing the stream edge identified on the USGS topographic map.

An unnamed tributary of the Genesee River was also identified and delineated within the project study area. Stream B, approximately 226 linear feet (0.045 acres) within the study area is located at the extreme western end of the study area and the stream generally flows north, under the railroad via a stone culvert, and into the river. Based on NYSDEC mapping, this stream (Ont. 117-91) is identified as Class C with C water quality standards, and is most likely perennial. The stream is not considered a protected water of the state. It is considered a water of the United States, under the relatively permanent water designation. The stream bed ranges from three to ten feet width and approximately 0.5 to four foot bank grade. The approximate average grade of the stream is five percent. Riffle-pool sequences are present. The streams attributes include a well defined OHW/MHW, including clear line impressed on the bank, destruction of

terrestrial plants, sediment deposition, lack of leaf litter, wrack line, scour, and sediment sorting. A small seep is located immediately upgradient on the northern side of the stream. This seep flows from a bedrock spring and down a swale that empties into the stream. The stream bed consists primarily of sands and gravels, with multiple large cobbles. This stream is a first order rocky headwater stream within the project study area.

4.0 CONCLUSIONS

One wetland area, including a 0.052 acre PEM wetland, was observed within the project study area as shown in the attached Wetland Delineation Plan. Based on the available reference material and field data collected by C&S, it is our opinion that the wetland within the project limits, as previously described, was delineated and recorded consistent with the USACE Manual. Based on field surveys, review of USGS mapping, and interpretation of available aerial photography, it is our opinion that Wetland A is jurisdictional. The Genesee River was identified within the project study area. In total, 187 linear feet of stream bed was identified as part of this report. This stream is a State protected waterbody under 6 NYCRR, Part 608, Use and Protection of Waters. The stream is a traditionally navigable water of the United States and is afforded protection as a water of the United States. Stream B, approximately 226 linear feet (0.045 acres) of stream bed, was delineated as part of this report. The stream, a perennial stream and relatively permanent waterbody, is afforded protection as a water of the United States; it is not a state protected waterbody.

5.0 REFERENCES

Cowardin, L.M., V. Carter, F. C. Golet, and E.T. LaRoe, 1979. Classification of Wetlands and Deepwater Habitats of the United States, U.S. Fish & Wildlife Service Pub. FWS/OBS-79/31, Washington, D.C. 103 pp.

Environmental Laboratory, 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS. NTIS No. AD A176 912. 143 pp.

Munsell Color. 2000. *Munsell Soil Color Charts*. GretagMacbeth, Division of Kollmorgen Instruments Corporation, New Windsor, New York.

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Reed, P.B. Jr., 1988. National List of Plant Species That Occur in Wetlands: Northeast (Region 1), U.S. Fish & Wildlife Service Biol. Rep. 88 (26.1). 111 pp.

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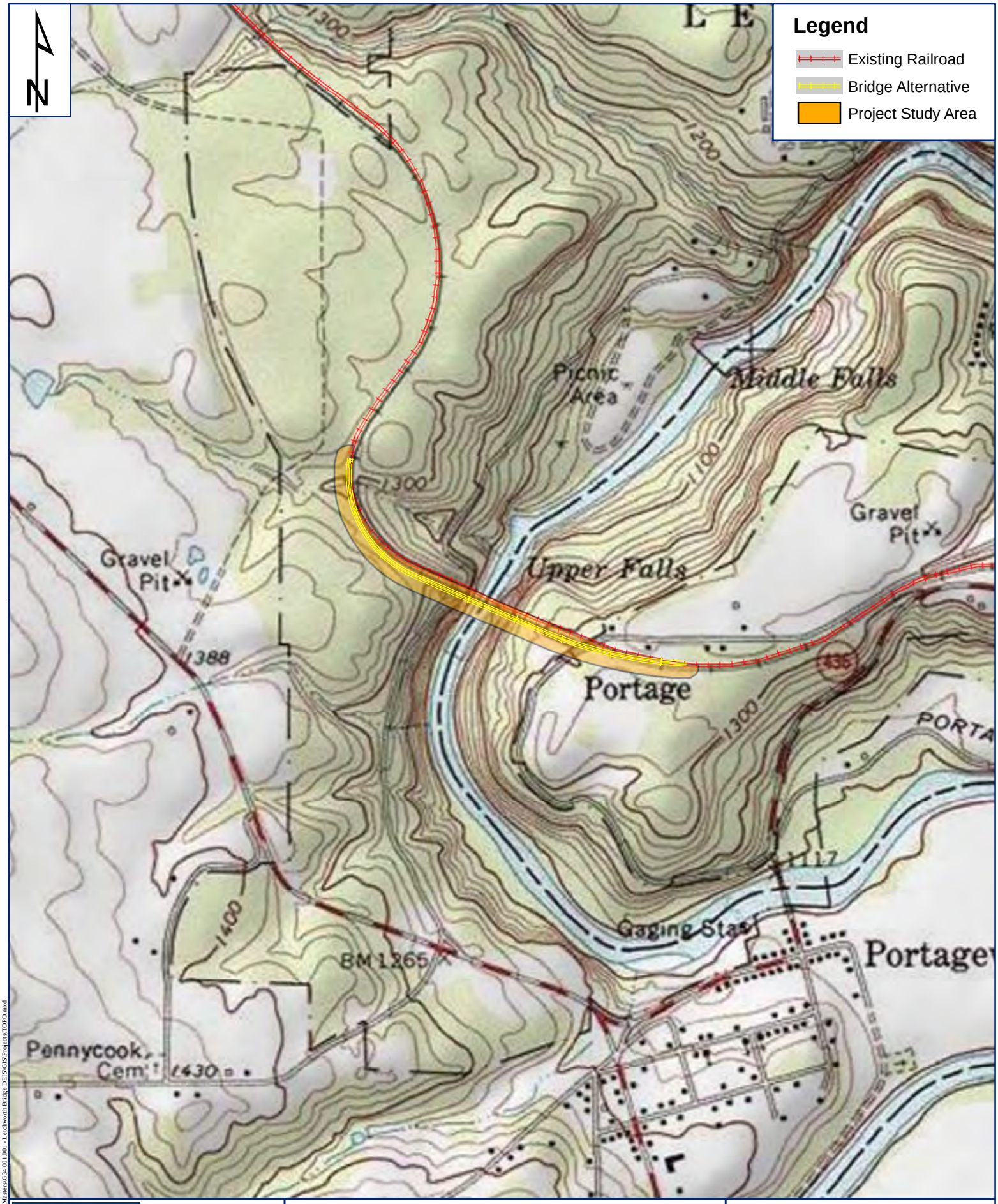
FIGURES

General Project Location and Topographic Map
NYSDEC Freshwater Wetlands and Streams Map
NWI Wetland Map
Soils Map



C&S COMPANIES®

Feet
0 500

Scale = 1:12,000

General Project Location and Topographic Map
Portageville Bridge Project
Town of Portageville, Livingston County New York
Town of Genesee Falls, Wyoming County, New York

Figure 1

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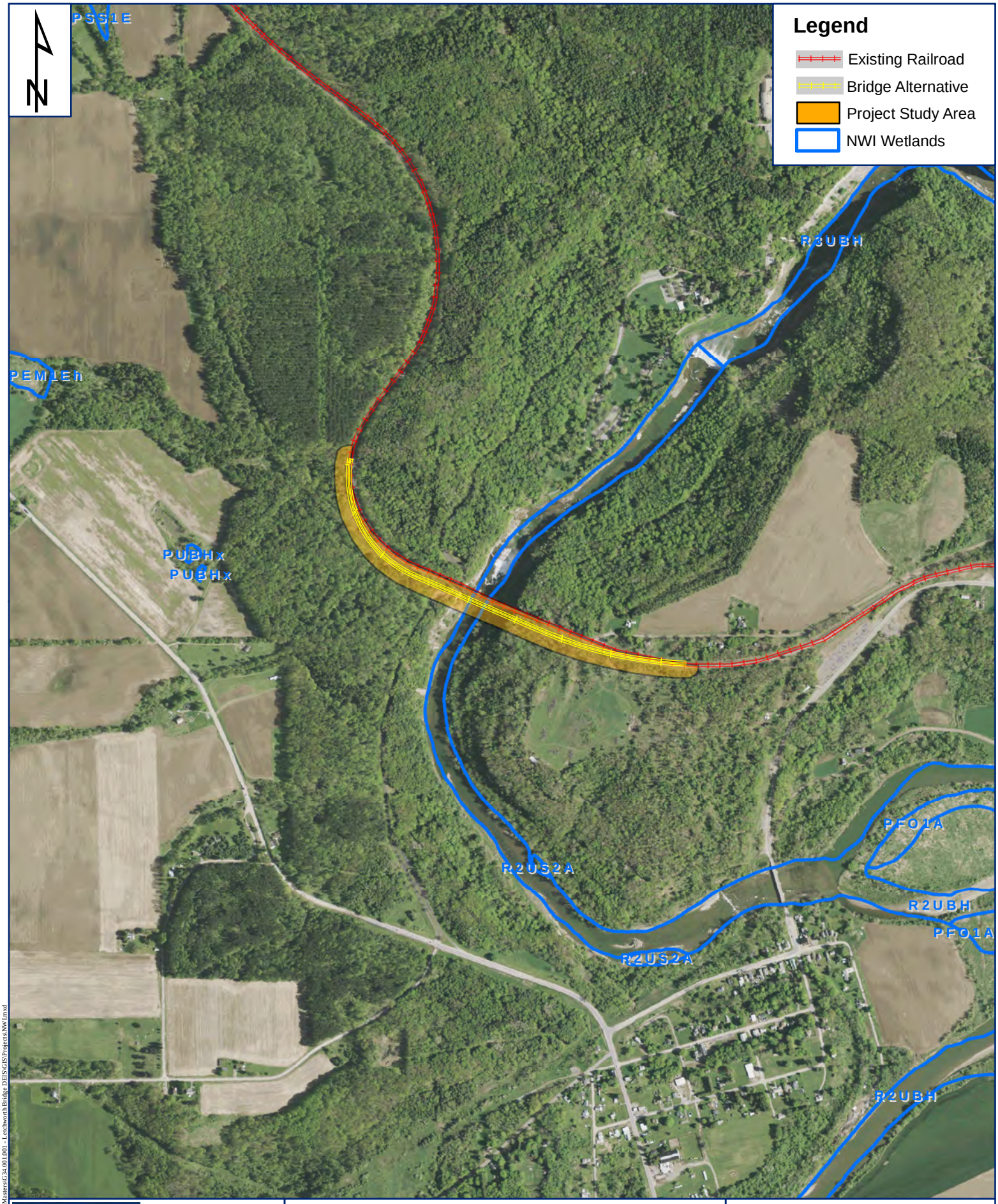
Source: USGS 7.5 Minute Topographic Maps



C&S COMPANIES®

Feet
0 500

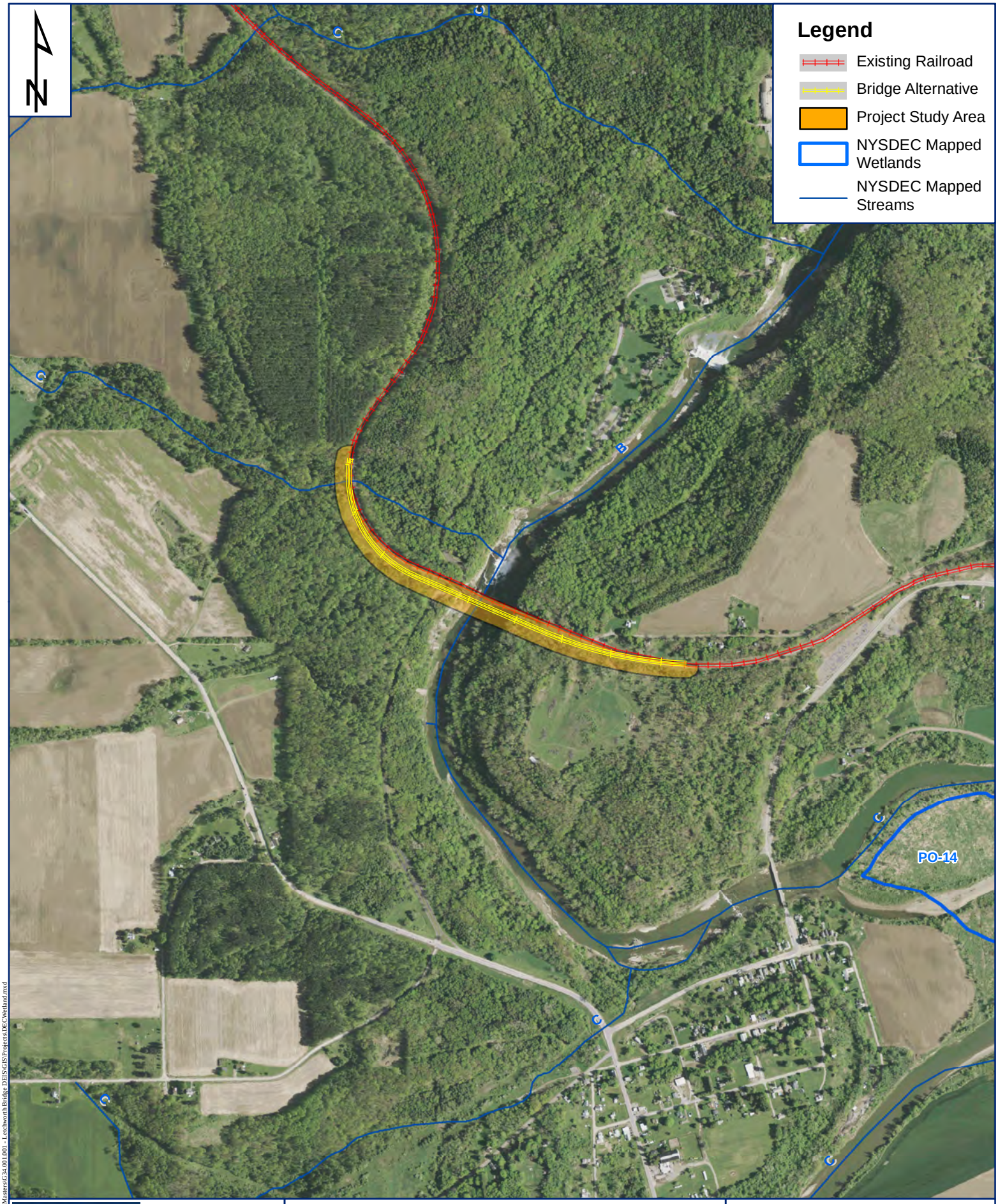
Scale = 1:12,000

NWI Wetlands Map
Portageville Bridge Project
Town of Portageville, Livingston County New York
Town of Genesee Falls, Wyoming County, New York

Figure 2

F:\Projects\G24 - Modjeski & Masters\G24.001.001 - Letchworth Bridge\DEIS\GIS\Projects\NWI.mxd

Source: USDA Geospatial Gateway Database, National Wetlands Inventory



C&S COMPANIES®

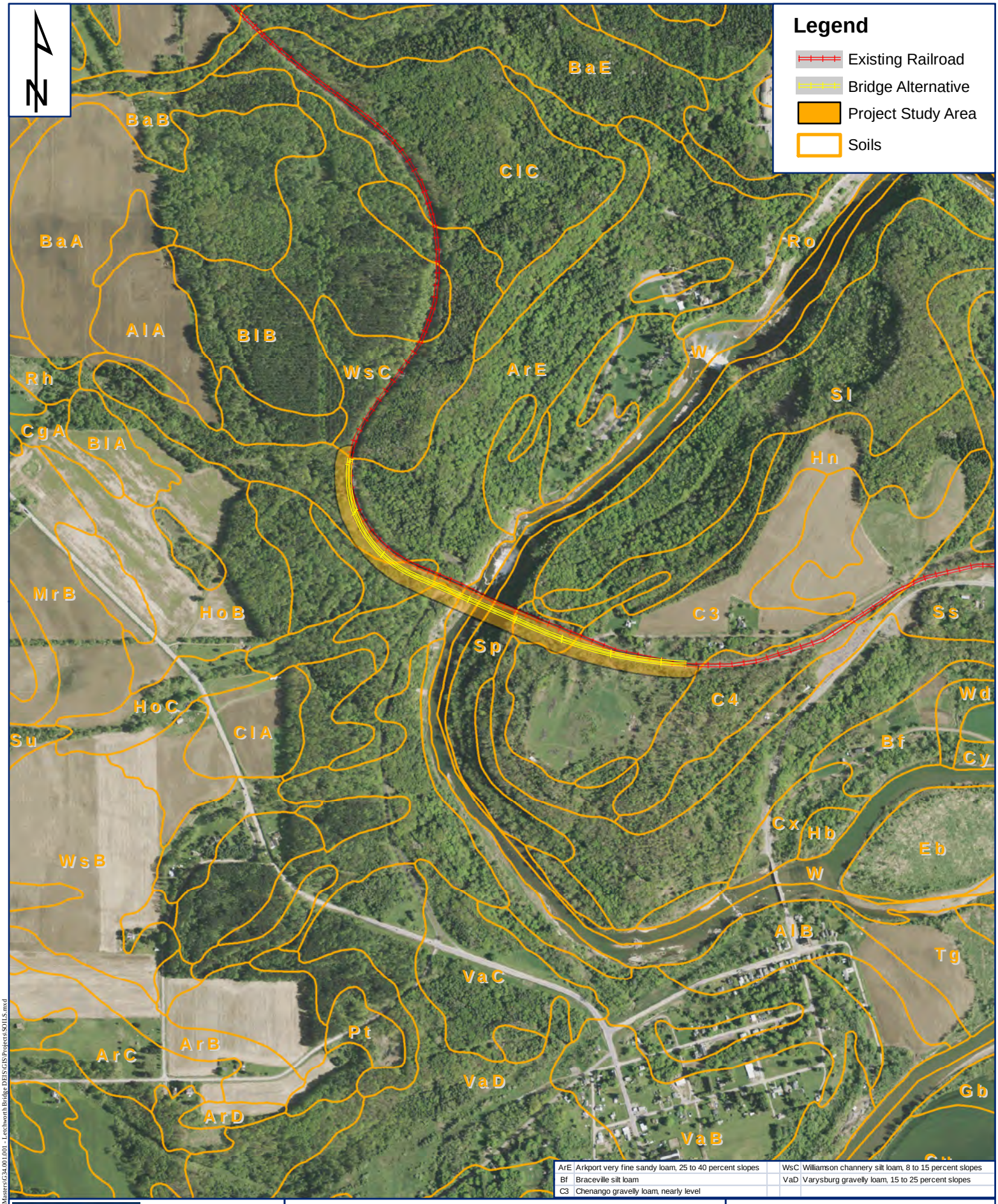
Feet
0 500
Scale = 1:12,000

NYSDEC Freshwater Wetlands & Stream Classification Map
Portageville Bridge Project
Town of Portageville, Livingston County New York
Town of Genesee Falls, Wyoming County, New York

Figure 3

F:\Projects\G24 - Modjeski & Masters\G24.001.001 - Letchworth Bridge_DEIS\GIS\Projects\DECWetland.mxd

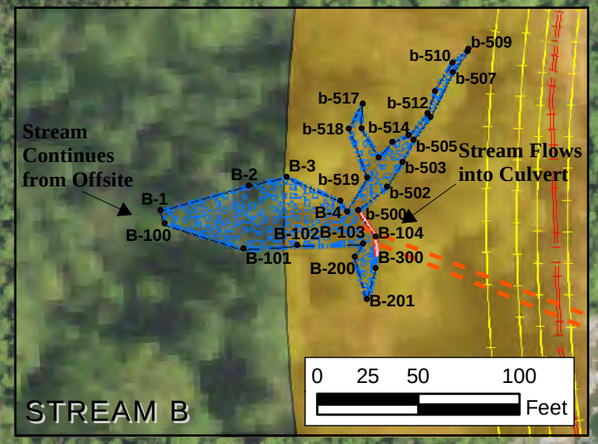
Source: NYSDEC - New York State Regulatory Freshwater Wetlands

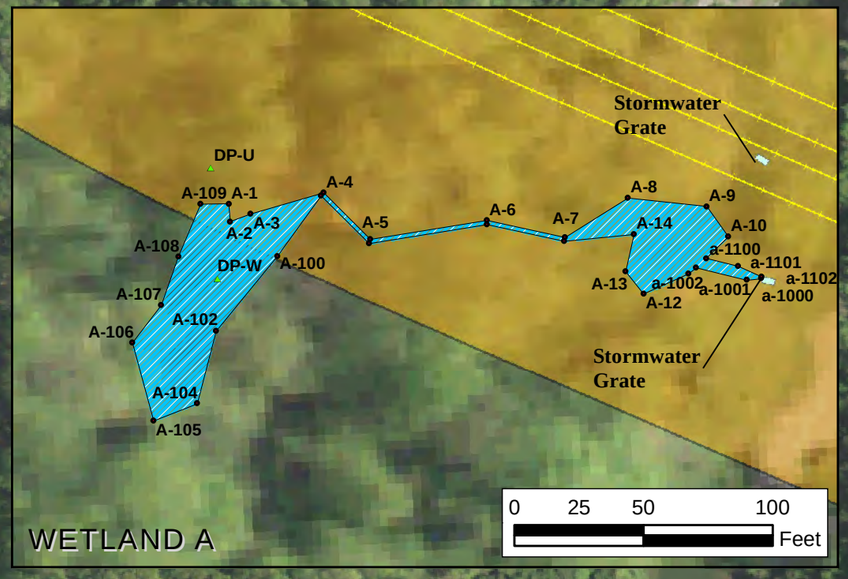

Legend
Existing Railroad
Bridge Alternative
Project Study Area
Soils
BaE
BaB
ClC
BaA
Ro
AlA
BlB
WsC
ArE
W
Sl
Rh
CgA
BlA
Hn
MrB
HoB
C3
Ss
Sp
C4
HoC
Wd
ClA
Su
Bf
Cy
Cx
Hb
Eb
WsB
W
AlB
Tg
VaC
Pt
ArC
ArB
VaD
Gb
ArD
VaB
ArE Arkport very fine sandy loam, 25 to 40 percent slopes
Bf Braceville silt loam
C3 Chenango gravelly loam, nearly level
WsC Williamson channery silt loam, 8 to 15 percent slopes
VaD Varysburg gravelly loam, 15 to 25 percent slopes
C&S COMPANIES®
Feet
0 500
Scale = 1:12,000
NRCS Soils Map
Portageville Bridge Project
Town of Portageville, Livingston County New York
Town of Genesee Falls, Wyoming County, New York
Figure 4
F:\Projects\G24 - Modjeski & Masters\G24.001\001 - Letchworth Bridge\DEIS\GIS\Projects\SOILS.mxd
Source: USDA, Natural Resources Conservation Service Soils Survey Geographic (SSURGO)

PLAN

WP – 1 - Wetland Delineation Plan

Wetland & Waterway Resources - Project Study Area	
Wetland A	0.052 acres
Stream B	226 linear feet (0.045 acres)
Genesee River	187 linear feet





Genesee River

Stream Continues

Note: Wetland and Stream updates based on Jurisdictional Review on April 27, 2011. Additional points denoted with lower case lettering.

0 200
Feet

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Syracuse, New York 13212
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Fax: 315-455-9667
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Legend

- Project Study Area
- Flag
- Data Point
- Stream OHW
- Weltand
- Approximate Stream OHW/MHW
- Bridge Alternative
- Existing Railroad

N

Portageville Bridge Project
Town of Portageville,
Livingston County New York
Town of Genesee Falls,
Wyoming County, New York

Revision Date: May 2011.
Additional points, notes, and updated acreage.

PROJECT NO:	G34001001
DATE:	September 2011
SCALE:	AS SHOWN
DRAWN BY:	WNR
DESIGNED BY:	WNR
CHECKED BY:	ABA

Source: USDA Geospatial Clearinghouse

05/02/11 - F:\Project\G34 - Modjeski & Masters\G34.001.001 - Letchworth Bridge DESIGN\GIS\Projects\WP1_updated_April_2011.mxd

WETLAND DELINEATION PLAN

WP1

APPENDIX A

Wetland Determination Sheets

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Portageville Bridge Project City/County: Wyoming County Sampling Date: 9/6/2010

Applicant/Owner: Norfolk Southern Corporation State: NY Sampling Point: A-W

Investigator(s): Atwell Section, Township, Range: Town of Genesee Falls

Landform (hillside, terrace, etc.): Toe of slope/ depression Local relief (concave, convex, none): concave Slope (%): 0-2

Subregion (LRR or MLRA): LRR R, MLRA 140 Lat: 42° 33' 57.23" Long: 74° 50' 02.55" Datum: NAD 83

Soil Map Unit Name: Williamson channery silt loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** X **No** ____
Wetland Hydrology Present?	Yes x	No ____	If yes, optional Wetland Site ID:

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- x Surface Water (A1)
- x High Water Table (A2)
- x Saturation (A3)
- ____ Water Marks (B1)
- ____ Sediment Deposits (B2)
- ____ Drift Deposits (B3)
- ____ Algal Mat or Crust (B4)
- ____ Iron Deposits (B5)
- ____ Inundation Visible on Aerial Imagery (B7)
- ____ Sparsely Vegetated Concave Surface (B8)
- x Water-Stained Leaves (B9)
- ____ Aquatic Fauna (B13)
- ____ Marl Deposits (B15)
- ____ Hydrogen Sulfide Odor (C1)
- ____ Oxidized Rhizospheres on Living Roots (C3)
- ____ Presence of Reduced Iron (C4)
- ____ Recent Iron Reduction in Tilled Soils (C6)
- ____ Thin Muck Surface (C7)
- ____ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ____ Surface Soil Cracks (B6)
- ____ Drainage Patterns (B10)
- ____ Moss Trim Lines (B16)
- ____ Dry-Season Water Table (C2)
- ____ Crayfish Burrows (C8)
- ____ Saturation Visible on Aerial Imagery (C9)
- ____ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ____ Shallow Aquitard (D3)
- ____ Microtopographic Relief (D4)
- x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes x	No ____	Depth (inches): 0.25	
Water Table Present?	Yes x	No ____	Depth (inches): surface	
Saturation Present? (includes capillary fringe)	Yes x	No ____	Depth (inches): surface	**Wetland Hydrology Present?** **Yes** x **No** ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
None

Remarks:
Surface water is present to a depth of 0.25 inches over approximately 30% of the sampling point.

VEGETATION – Use scientific names of plants. Sampling Point: A-W

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	=Total Cover		
Herb Stratum (Plot size: 5 ft)			
1. *Impatiens capensis*	55	Yes	FACW
2. *Lysimachia nummularia*	10	No	OBL
3. *Microstegium vimineum*	5	No	FAC
4. *Scirpus atrovirens*	5	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	75 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	55	x 2 =	110
FAC species	5	x 3 =	15
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	75 (A)		140 (B)

Prevalence Index = B/A = 1.87

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

X Dominance Test is >50%

X Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? **Yes** X **No** ___

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: A-W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	2.5Y 4/2	80	5Y 4/1	20	D	M	Loamy/Clayey	Medium sandy loam
2-5	5Y 3/1	75	5Y 4/1	25	C	M	Loamy/Clayey	Gravelly medium sandy loam, faint redox
5-8	5Y 5/1	82	5Y 5/3	8	C	M	Loamy/Clayey	Gravelly medium sandy loam, distinct redox
8-16	2.5Y 4/2	86	2.5Y 5/3	10	C	M	Loamy/Clayey	Gravelly medium sandy loam, faint redox
			2.5Y 4/1	4	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- X Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) (**LRR R, MLRA 149B**)
- ___ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- ___ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- ___ Loamy Mucky Mineral (F1) (**LRR K, L**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L**)
- ___ Polyvalue Below Surface (S8) (**LRR K, L**)
- ___ Thin Dark Surface (S9) (**LRR K, L**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- ___ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Fragipan or gravel

Depth (inches): 16

Hydric Soil Present? **Yes** X **No** ___

Remarks:

Auger & shovel refusal at 16 inches due to gravel or fragipan layer.

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Portageville Bridge Project City/County: Wyoming County Sampling Date: 9/6/2010

Applicant/Owner: Norfolk Southern Corporation State: NY Sampling Point: A-U

Investigator(s): Atwell Section, Township, Range: Town of Genesee Falls

Landform (hillside, terrace, etc.): Plateau Local relief (concave, convex, none): convex Slope (%): 0-2

Subregion (LRR or MLRA): LRR R, MLRA 140 Lat: 42° 33' 57.39" Long: 74° 50' 03.03" Datum: NAD 83

Soil Map Unit Name: Williamson channery silt loam NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes x No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** **Yes** ____ **No** X
Wetland Hydrology Present?	Yes ____	No x	If yes, optional Wetland Site ID: ____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- x Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- x FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ____	No x	Depth (inches): ____
Water Table Present?	Yes ____	No x	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No x	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** x

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
None

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: A-U

Tree Stratum (Plot size: 30 feet)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Pinus strobus*	25	Yes	FACU
2. *Acer saccharum*	35	Yes	FACU
3. *Liriodendron tulipifera*	10	No	FACU
4. *Tsuga canadensis*	10	No	FACU
5. *Fraxinus pennsylvanica*	10	No	FACW
6. *Tilia americana*	10	No	FACU
7.			
	100	=Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet)			
1. *Fraxinus pennsylvanica*	20	Yes	FACW
2. *Carpinus caroliniana*	10	Yes	FAC
3. *Acer saccharum*	10	Yes	FACU
4.			
5.			
6.			
7.			
	40	=Total Cover	

Herb Stratum (Plot size: 5 feet)			
1. *Sporobolus vaginiflorus*	20	Yes	UPL
2. *Agrimonia parviflora*	10	Yes	FAC
3. *Oxalis europaea*	5	No	UPL
4. *Arisaema triphyllum*	2	No	FACW
5. *Polygonatum biflorum*	2	No	FACU
6. *Viola sp.*	5	No	
7. *Fraxinus pennsylvanica*	2	No	FACW
8. *Acalypha rhomboidea*	2	No	FACU
9. *Geranium pusillum*	10	Yes	UPL
10.			
11.			
12.			
	58	=Total Cover	

Woody Vine Stratum (Plot size:)			
1.			
2.			
3.			
4.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 37.5% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	34	x 2 =	68
FAC species	20	x 3 =	60
FACU species	104	x 4 =	416
UPL species	35	x 5 =	175
Column Totals:	193 (A)		719 (B)

Prevalence Index = B/A = 3.73

Hydrophytic Vegetation Indicators:

___ Rapid Test for Hydrophytic Vegetation

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ___ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: A-U

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5Y 3/2	100					Loamy/Clayey	Gravelly medium sandy loam
4-11	2.5Y 4/3	100					Loamy/Clayey	Gravelly medium sandy loam
11-16	2.5Y 4/4	100					Loamy/Clayey	Gravelly medium sandy loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Fragipan or gravel layer

Depth (inches): 16

Hydric Soil Present? Yes ___ No X

Remarks:

Auger & shovel refusal at 16 inches due to gravel or fragipan layer.

APPENDIX B

Wetland Photographs

Wetlands & Waterways Delineation Report
Norfolk Southern Corporation Portageville Bridge Project
Town of Portageville, Livingston County & Town of Genesee Falls, Wyoming County, New York

Wetland A

Genesee River, looking south from the northern end of the bridge abutment

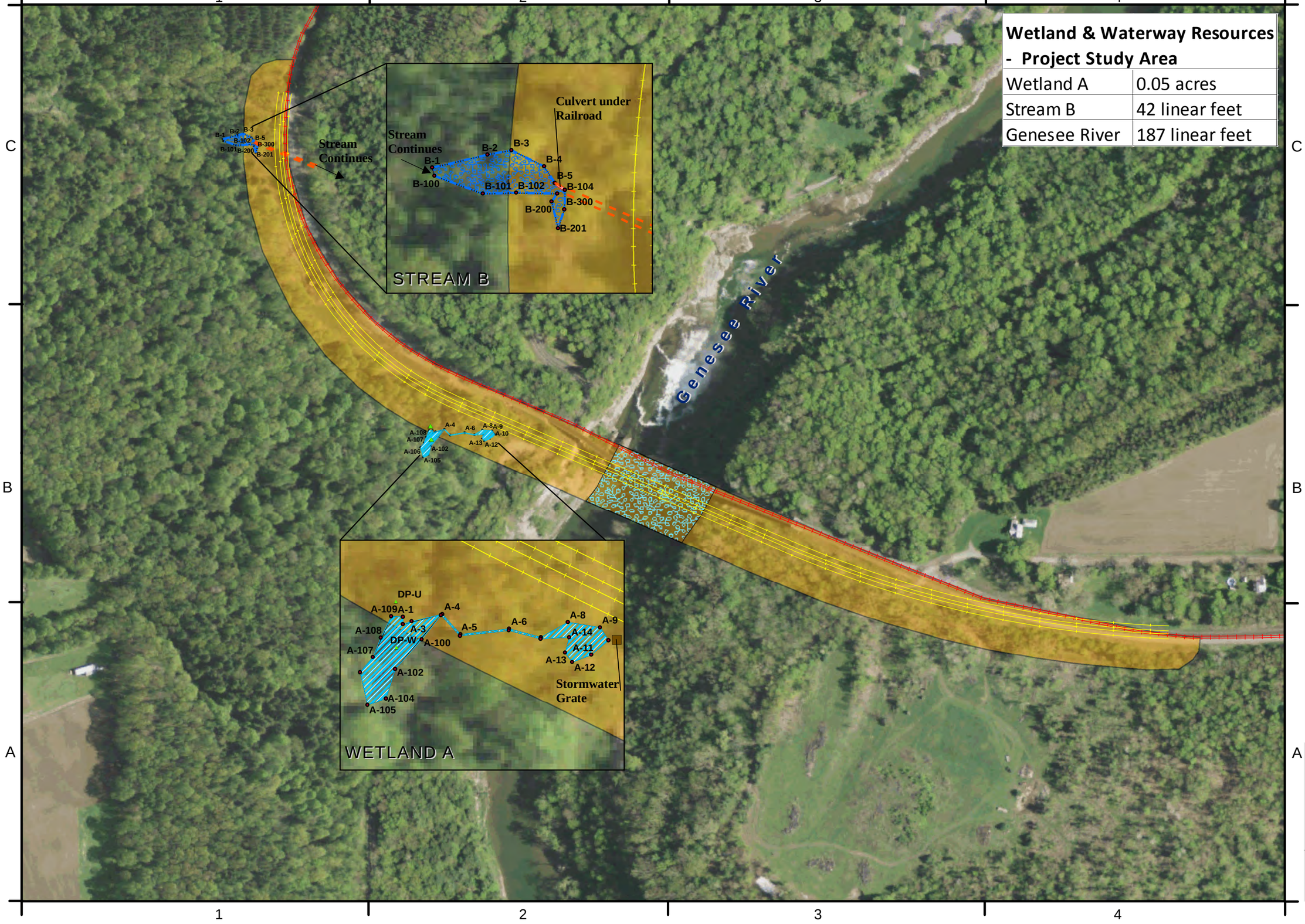
Wetlands & Waterways Delineation Report
Norfolk Southern Corporation Portageville Bridge Project
Town of Portageville, Livingston County & Town of Genesee Falls, Wyoming County, New York

Stream B, looking upstream

Stream B, looking downstream towards culvert

APPENDIX C

Previous Information



Wetland & Waterway Resources - Project Study Area	
Wetland A	0.05 acres
Stream B	42 linear feet
Genesee River	187 linear feet

C&S COMPANIES®
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Syracuse, New York 13212
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www.cscos.com

Legend
- Project Study Area
- Flag
- Data Point
- Stream OHW
- Weltand
- Approximate Stream OHW/MHW
- Bridge Alternative
- Existing Railroad

N

Portageville Bridge Project
Town of Portageville,
Livingston County New York
Town of Genesee Falls,
Wyoming County, New York

0 200 Feet

PROJECT NO:	G34001001
DATE:	January 2010
SCALE:	AS SHOWN
DRAWN BY:	WNR
DESIGNED BY:	WNR
CHECKED BY:	ABA

Source: USDA Geospatial Clearinghouse

12/15/09 - F:\Project\G34 - Modjeski & Masters\G34.001.001 - Letchworth Bridge DES\GIS\Projects\WP1.mxd

WETLAND DELINEATION PLAN

WP1

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DATA FORM[1]
ROUTINE WETLAND DETERMINATION

Project/Site:	Portageville Bridge Project Parallel Alignment	Date:	October 2, 2008
Applicant/Owner:	Modjeski & Masters	County:	Livingston/Wyoming
Investigator(s):	A. Atwell	State:	New York

Do Normal Circumstances exist on the site?	(Yes) No	Community ID:	Wetland A – PEM
Is the site significantly disturbed (Atypical Situation)?	Yes (No)	Location:	As noted
Is the area a potential Problem Area?	Yes (No)	Plot ID:	A-W
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Impatiens capensis*	Herb	FACW	9.		
2. *Scirpus atrovirens*	Herb	OBL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: The percentage of dominant vegetation with an indicator status of OBL, FACW, or FAC is greater than 50 percent, indicating that vegetation within this data point is hydrophytic.

HYDROLOGY

____ Recorded Data (Describe in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other

X No Recorded Data Available

Field Observations:

Depth of Surface Water:	None	(in.)
Depth to Free Water in Pit:	4	(in.)
Depth to Saturated Soil:	Surface	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- X Saturated in Upper 12 Inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- X Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- X Water-Stained Leaves
- ____ Local Soil Survey Data
- X FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:

The presence of primary and secondary indicators of hydrology indicates that wetland hydrology is present at this data point.

[1] *Data Form, Routine Wetland Determination, consistent with 1987 Corps of Engineers Wetland Delineation Manual*

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DATA FORM[1]
ROUTINE WETLAND DETERMINATION
(Continued)

SOILS

Map Unit Name (Series and Phase): Williamson channery silt loam, 8-15% slopes

Drainage Class: MWD

Taxonomy (Subgroup): Typic Fragiudept

Field Observations Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1	A	2.5Y 4/2	---	---	Loamy sand
1-8	Ag	5Y 3/1	5Y 4/3	Common, medium, distinct	Sandy loam
			2.5Y 4/1	Common, medium, distinct	Gravelly sandy loam
8-15+	Bg	2.5Y 4/2	2/5Y 4/1	Common, medium, distinct	
			10 YR 4/4	Common, medium, distinct	

Hydric Soil Indicators:

___	Histosol	___	Concretions
___	Histic Epipedon	___	High Organic Content in Surface Layer in Sandy Soils
___	Sulfidic Odor	___	Organic Streaking in Sandy Soils
___	Aquic Moisture Regime	___	Listed on Local Hydric Soils List
___	Reducing Conditions	___	Listed on National Hydric Soils List
X	Gleyed or Low-Chroma Colors	___	Other (Explain in Remarks)

Remarks:
The presence of low-chroma colors indicates that the soils are hydric.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)
Wetland Hydrology Present?	(Yes)	No	
Hydric Soils Present?	(Yes)	No	

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks:

The presence of all three wetland parameters indicates that this data point is representative of Wetland A.

Approved by HQUSACE 3/92

[1] *Data Form, Routine Wetland Determination, consistent with 1987 Corps of Engineers Wetland Delineation Manual*

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DATA FORM[1]
ROUTINE WETLAND DETERMINATION

Project/Site:	Portageville Bridge Project Parallel Alignment	Date:	October 2, 2008
Applicant/Owner:	Modjeski & Masters	County:	Livingston/Wyoming
Investigator(s):	A. Atwell	State:	New York

Do Normal Circumstances exist on the site?	(Yes) No	Community ID:	Upland forest
Is the site significantly disturbed (Atypical Situation)?	Yes (No)	Location:	As noted
Is the area a potential Problem Area?	Yes (No)	Plot ID:	A-U
(If needed, explain on reverse.)			

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. *Fraxinus pennsylvanica*	Tree	FACW	9.		
2. *Tsuga canadensis*	Tree	FACU	10.		
3. *Liriodendron tulipifera*	Tree	FACU	11.		
4. *Impatiens capensis*	Herb	FACW	12.		
5. *Ageratina altissims*	Herb	FACU-	13.		
6. *Mitchella repens*	Herb	FACU	14.		
7. *Rumex crispus*	Herb	FACU	15.		
8. *Scirpus atrovirens*	Herb	OBL	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 38%

Remarks: The percentage of dominant vegetation with an indicator status of OBL, FACW, or FAC is not greater than 50 percent, indicating that vegetation within this data point is not hydrophytic.

HYDROLOGY

Recorded Data (Describe in Remarks):
- ____ Stream, Lake, or Tide Gauge
- ____ Aerial Photographs
- ____ Other
- X No Recorded Data Available

Field Observations:

Depth of Surface Water:	N/A	(in.)
Depth to Free Water in Pit:	>15	(in.)
Depth to Saturated Soil:	>15	(in.)

Wetland Hydrology Indicators:

Primary Indicators:
- ____ Inundated
- ____ Saturated in Upper 12 Inches
- ____ Water Marks
- ____ Drift Lines
- ____ Sediment Deposits
- ____ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):
- ____ Oxidized Root Channels in Upper 12 inches
- ____ Water-Stained Leaves
- ____ Local Soil Survey Data
- ____ FAC-Neutral Test
- ____ Other (Explain in Remarks)

Remarks:
The absence of primary and secondary indicators of hydrology indicates that wetland hydrology is not present.

[1] *Data Form, Routine Wetland Determination, consistent with 1987 Corps of Engineers Wetland Delineation Manual*

DATA FORM[1]
ROUTINE WETLAND DETERMINATION
(Continued)

SOILS

Map Unit Name (Series and Phase): Williamson channery silt loam, 8-15% slopes

Drainage Class: MWD

Taxonomy (Subgroup): Typic Fragiudept

Field Observations Confirm Mapped Type? Yes (No)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	A1	2.5Y 5/3	---	---	Sandy loam
2-10	A2	2.5Y 3/1	---	---	Sandy loam
10-15+	Bw	2.5Y 5/3	---	---	Gravely sandy loam

Hydric Soil Indicators:

- ____ Histosol
- ____ Histic Epipedon
- ____ Sulfidic Odor
- ____ Aquic Moisture Regime
- ____ Reducing Conditions
- ____ Gleyed or Low-Chroma Colors
- ____ Concretions
- ____ High Organic Content in Surface Layer in Sandy Soils
- ____ Organic Streaking in Sandy Soils
- ____ Listed on Local Hydric Soils List
- ____ Listed on National Hydric Soils List
- ____ Other (Explain in Remarks)

Remarks:
Hydric soils are not present.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	(No)	(Circle)
Wetland Hydrology Present?	Yes	(No)	
Hydric Soils Present?	Yes	(No)	

Is this Sampling Point Within a Wetland? Yes (No) (Circle)

Remarks:

The absence of all three wetland parameters indicates that this data point is not within a wetland.

Approved by HQUSACE 3/92

[1] *Data Form, Routine Wetland Determination, consistent with 1987 Corps of Engineers Wetland Delineation Manual*